

# Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

## **Texfel® Echo 9 acoustic PET panel**

from



Programme:	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
EPD registration number:	S-P-11400
Publication date:	2023-11-13
Valid until:	2028-11-13

*An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com)*



Texfel®  
Acoustic & Design PET Felt

## General information

### Programme information

<b>Programme:</b>	The International EPD <sup>®</sup> System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
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<b>Accountabilities for PCR, LCA and independent, third-party verification</b>
<b>Product Category Rules (PCR)</b>
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i>PCR 2019:14 Construction products (EN 15804:A2) (1.2.5) (2022-11-01)</i> <i>c-PCR-014 Acoustical ceiling and wall solutions (2022-01-28)</i>
PCR review was conducted by: <i>Technical Committee of the International EPD<sup>®</sup> System. The review panel may be contacted via <a href="mailto:info@environdec.com">info@environdec.com</a>.</i>
<b>Life Cycle Assessment (LCA)</b>
LCA accountability: <i>Eco Intelligent Growth, Barcelona (Spain)</i> T. (+34) 934 199 080 <a href="mailto:info@ecointelligentgrowth.net">info@ecointelligentgrowth.net</a>
<b>Third-party verification</b>
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:  <input checked="" type="checkbox"/> EPD verification by individual verifier  Third-party verifier: <i>Elisabet Amat, GREENIZE</i>  Approved by: The International EPD <sup>®</sup> System
Procedure for follow-up of data during EPD validity involves third party verifier:  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

## Company information

Owner of the EPD: Filtros y Tejidos Industriales S.L. (FYTISA)

Contact: David Novas, +34 608 60 34 98, quality@fytisa.com

Description of the organisation:

At FYTISA we specialise in creating products that connect spaces with people. We are manufacturers since 1841 and our know-how and quality in synthetic non-wovens are what have made Texfel<sup>®</sup> a reference in the sector. This has been followed, year after year, by different products which, with the same essence and quality, are present in a multitude of spaces: offices, restaurants, theatres, business schools, etc.

We like to take care of every detail. That is why we only manufacture products of the highest quality, which go beyond a simple felt; they are a way of understanding design as a form of expression that turns spaces into something surprising, fun and functional at the same time.

Our factory is in Olius (Lleida), and our headquarters are in Sant Cugat del Vallés (Barcelona).

Product-related or management system-related certifications: ISO-9001 and IATF-16949 for supply chain management, Euroclass Bs2d0 for reaction to fire.

See related norms at Reference section.

Name and location of production site(s): Fonoll 1, 25286 Olius (Lleida, Spain)

## Product information

Product name: Texfel<sup>®</sup> Echo 9

Product description: Fibre PES acoustic panel.

<b>Commercial description of the product</b>	High-density acoustic panel made of 60% post-consumer recycled PET.
<b>Summary of features</b>	High density PET felt acoustic panels in 18 colours.
<b>Intended use</b>	Commercial spaces, offices, education, hotels, theaters and auditoriums, among others.
<b>Properties</b>	100% PET composition, minimum 60% recycled. Reaction to fire <ul style="list-style-type: none"> <li>• EN 13501-1+A1: B-s2, d0</li> </ul> Sound absorption <ul style="list-style-type: none"> <li>• UNE-EN ISO 354:2004: up to <math>\alpha_w = 0.90</math> (-)</li> <li>• EN ISO 11654: Class A</li> </ul> Environment <ul style="list-style-type: none"> <li>• Recyclable, low VOC emission, REACH, RoHS</li> </ul>

<b>Weight</b>	1,620 g/m <sup>2</sup>
<b>Density</b>	180 kg/m <sup>3</sup>
<b>Thickness</b>	9 mm
<b>Format</b>	2,440 x 1,220 mm 2,800 x 1,220 mm 3,050 x 1,220 mm

UN CPC code: CPC code: 27922 Nonwovens

Geographical scope: For A1 and A2, the raw materials are supplied mostly from Spain, while some other are supplied from other parts of Europe and South Korea. The manufacturing process (A3) is done in Spain. For A4 and A5, the product is distributed to Central Europe. Modules B and C take place in the same country where the final product is sold. Module D takes place in the same country where the waste is originated.

## LCA information

Functional unit: 1 m<sup>2</sup> of installed acoustic panels for both walls and ceilings with a reference service life of 50 years and a declared acoustic performance class A according to EN ISO 11654.

### Reference service life:

Reference service life of Texfel<sup>®</sup> Echo 9 is 50 years according to the default value corresponding to the building design life established in the PCR 2014:02 for buildings.

Time representativeness: Inventory data was gathered from January 2023 to July 2023. Secondary data based on the Ecoinvent database correspond to the latest available in the Ecoinvent v3.9.1 with a time representativeness for 1945 – 2021 considering all activities.

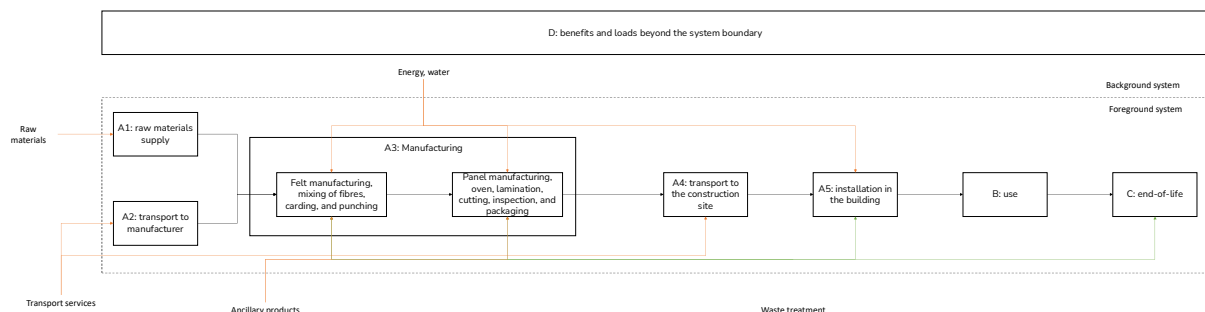
Database(s) and LCA software used: The database used was Ecoinvent 3.9.1 “Allocation, cut-off EN15804”. The software used was brightway25 version 1.0.6.

### Description of system boundaries:

The system boundaries of this EPD are Cradle to grave and module D (A + B + C + D).

All major materials, production energy use, and waste are included for product stages A1-A3, A4-A5, C1-C4, and D. Stages B1-B7 are also included, however there is no impact related to usage stage since it is assumed that there is no maintenance, replacement, or repair during its lifetime, and no direct emissions related to this kind of products.

### System diagram:



## PRODUCT LIFE CYCLE:

A1 - Raw material supply

This module represents the extraction and processing of raw materials used in Texfel<sup>®</sup> Echo 9 panels. Among them are the main raw materials such as PET and polyester.

#### A2 - Transport to production sites

Raw materials are mostly transported by road with a distance not higher than 450 km for all providers (providers based in Spain). The only exception is a fraction of the PET used as raw material, which is transported from South Korea by ship and truck (16,880 km).

#### A3 - Manufacturing

This stage includes the manufacturing processes of the felt. The processes are fibre mixing, carding, needlepunching, cutting and packaging and are carried out at the FYTISA facilities. Total annual inputs (packaging, energy, and water) and outputs (products and wastes) have been allocated per m<sup>2</sup> produced in the manufacturing plant from January 2023 to July 2023. Regarding the electricity use, 72% comes from the Spanish electricity mix, and the remaining 28% from a solar power plant installed on site. The GWP-GHG of the electricity is 0,262 kg CO<sub>2</sub> eq/kWh.

#### A4 - Transport

This module includes transport from the FYTISA facilities to the building site. Transport is calculated on the basis of a scenario with the parameters described in the following table and the distances by road are weighted to different destinations of FYTISA's customers according to sales volumes in the analyzed period.

#### TECHNICAL PARAMETERS A4

Scenario parameter	Value
Specific transport CO <sub>2</sub> eq. emissions, kg CO <sub>2</sub> e / tkm Lorry, 16-32t, EURO5	0,09
Average transport distance, km	2.450
Capacity utilization (including empty return) %	Default value from Ecoinvent 3.9.1
Bulk density of transported products	N/A
Volume capacity utilization factor	≈ 1

#### A5 - Installation

This module includes the materials required for installation, as well as the wastes generated during the installation of the FYTISA panels.

Scenarios of waste treatments of packaging are based on the EXIOBASE 3 hybrid database for the end-of-life treatment of paper and plastics. Germany is used as representative region as it is the country with the highest sales volume.

Region	Assumed EXIOBASE region	Waste fraction	Waste treatment	Value
Central Europe	Germany	Paper	Recycling	71%
Central Europe	Germany	Paper	Incineration	28%
Central Europe	Germany	Paper	Composting	0%
Central Europe	Germany	Paper	Landfill	1%
Central Europe	Germany	Plastics	Recycling	7%
Central Europe	Germany	Plastics	Incineration	86%

Central Europe	Germany	Plastics	Landfill	7%
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During the installation of the acoustic panels, two processes are modelled: either gluing or using screws to attach the panels. Both options are assumed to be used equally. If screws are used, a screwdriver is assumed to be used for 2 minutes on average (Gervasio et al. 2018).

#### B1-B7- Use stage

The product does not require any maintenance, repair, or replacement during the reference service life. Furthermore, no direct emissions during the reference service life could be identified.

#### C1 - De-construction

Module C1 assumes a manual removal of the panels, so there are no energy or material requirements for the de-construction stage.

#### C2 - Transport to waste processing

The transport distance to the nearest waste processing plant is estimated at 50 km and the mode of transport is assumed to be truck which is most common (Wittstock 2012).

#### C3 - Waste processing for reuse, recovery and/or recycling

The panels are considered to be landfilled without reuse, recovery, or recycling. Therefore, there is no contribution to the impact categories for this module.

#### C4 - Final disposal

The most likely disposal route for the panels is assumed to be a treatment as inert waste in landfill, assuming a conservative scenario. The amount of waste generated sent to final disposal is the same as that shown in the composition table.

#### D - Reuse, recovery, or recycling potential

This module includes only benefits and loads of packaging recycling and incineration with energy recovery.

### CUT-OFF RULES

No life cycle stage, processes, or required data were knowingly omitted. All relevant material and energy inputs were included. Flows related to both services (intangible products) and the use of fixed capital assets are considered irrelevant in the foreground system and are excluded. The effect of such exclusion is considered to be of low importance. No exclusion based on mass or energy has been made.

### ALLOCATION

General allocation principles were applied according to EN 15804:2012+A2:2019.

### DATA QUALITY

Data quality requirements are described following:

Category	Specific data quality requirement
Temporary coverage	The data in the foreground and background systems must not be older than 2 and 7 years respectively.

Geographical coverage	The data in the foreground system must match the actual geographic coverage, either directly or through regional proxies.
Technological coverage	The foreground system data must match the specific technology or combination of technologies.
Precision	It is not necessary to quantify the variance of the data values.
Integrity	All flows must be fully measured.
Representativity	The degree to which the dataset reflects the true population of interest (i.e. geographic coverage, time period, and technology coverage) should be considered at least very good.
Consistency	The uniform application of the study methodology should be considered at least very good.
Reproducibility	The results reported in the study should be fully reproducible using the information provided.
Data sources	Foreground processes should be based on recent real data. Background processes are mainly derived from the Ecoinvent database.
Uncertainty	It is not necessary to quantify the uncertainty of the results.

## ESTIMATES AND ASSUMPTIONS

Main estimates and assumptions are:

- A1-A3: product stage
  - o A1: raw material supply
    - Pallets are assumed to be reused 30 times.
  - o A2: transport to manufacturer
    - Assumes the use of 16 to 32 ton trucks with EURO5 emission standard.
  - o A3: manufacturing
    - Disposal of waste trimmings and raw material packaging waste.
      - Waste with selective collection is assumed to be recycled.
      - Waste without selective collection is assumed to be incinerated.
- A4-A5: construction process stage
  - o A4: transportation to the construction site
    - Distribution of products to companies.
      - An average distance to clients of 1300 km is assumed for all products.
      - Assumes the use of 16 to 32 ton trucks with EURO6 emission standards.
    - Transportation to the construction site
      - An average distance to the construction site of 20 km is assumed for all products.
  - o A5: installation in the building
    - Disposal of end-product packaging waste
      - Packaging waste is treated in each location of installation according to national end of life scenarios as described in the EXIOBASE 3 hybrid database.
    - Installation in the building
      - Installation using two formats with comparable installed quantities is assumed: adhesive and anchored installation.
      - For adhesive installation, a glue thickness of 0.05 mm for a volume of 0.05 liters/m<sup>2</sup> is assumed. A density of 0.96 g/ml is also assumed.
      - For installation with anchors, an installation time of 20 minutes per m<sup>2</sup> is assumed based on our own knowledge. Within this time, a 10%

use of power tools with an average power of 1 kWh is assumed. The corresponding electricity consumption for the Europe region is included, excluding the necessary machinery due to lack of equivalent products from the background system database used. Assumes a volume of fasteners equivalent to 7 grams of steel according to own expert knowledge.

- B: use stage
  - o It is assumed that, once the panels are installed, no action is required during the use phase.
- C: end of life
  - o C1: deconstruction, demolition
    - Assumes an uninstallation time of 20 minutes per m<sup>2</sup> according to own expert knowledge. Within this time, a 10% use of power tools with an average power of 1 kWh is assumed. The corresponding electricity consumption for the Europe region is included, excluding the necessary machinery due to lack of equivalent products from the background system database used.
  - o C2: transport to the waste treatment site
    - An average distance to the waste treatment site of 50 km is assumed for all products.
  - o C3: treatment of waste for reuse, recovery and/or recycling
  - o C4: waste disposal
    - Due to lack of data, it is assumed as a conservative scenario that 100% of the final product is destined to landfill.
- D: benefits and burdens beyond the system boundary
  - o Benefits and burdens beyond the system boundary related to the recycling potential are calculated according to the end-of-waste condition and point of substitution assumptions and correction factors described in the database Ecoinvent 3.9.1 "Allocation, cut-off EN15804".

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Geography	WLD	WLD	ES	EU	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE	DE
Specific data used	>90%			>90%	0%	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	Not relevant			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Not relevant			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

X = Declared module

## Content information

Raw material composition of 1 m<sup>2</sup> of Texfel® Echo 9 and its packaging is presented in the following table:

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Polyethylene terephthalate	1,60E+00	61,2%	0,00% and 0,00E+00 kg C/kg
Polyester	2,16E-02	0,00%	0,00% and 0,00E+00 kg C/kg
TOTAL	1,62E+00	60,4%	0,00% and 0,00E+00 kg C/kg
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Plastic stripes (PVC)	2,02E-04	0,01%	0,00E+00
Wood stripes	1,34E-05	0,00%	6,72E-06
Cardboard	1,34E-02	1,34%	6,72E-03
Plastic film (HDPE)	2,02E-03	0,20%	0,00E+00
Wood europallet	4,00E-04	0,02%	2,00E-04
TOTAL	2,57E-02	1,57%	6,73E-03

The product does not contain any REACH SVHC substances in amounts greater than 0,1% (1000 ppm).

## Results of the environmental performance indicators

### Mandatory impact category indicators according to EN 15804

Results per functional unit (1 m <sup>2</sup> )										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-fossil	kg CO <sub>2</sub> eq.	2,93E+00	7,47E-01	1,63E-01	0,00E+00	0,00E+00	1,55E-02	0,00E+00	1,00E-02	-2,52E-01
GWP-biogenic	kg CO <sub>2</sub> eq.	-8,34E-04	6,42E-04	8,01E-02	0,00E+00	0,00E+00	1,33E-05	0,00E+00	5,26E-06	3,95E-02
GWP-luluc	kg CO <sub>2</sub> eq.	3,53E-03	3,63E-04	1,43E-04	0,00E+00	0,00E+00	7,54E-06	0,00E+00	6,05E-06	9,05E-05
GWP-total	kg CO <sub>2</sub> eq.	2,93E+00	7,48E-01	2,43E-01	0,00E+00	0,00E+00	1,56E-02	0,00E+00	1,00E-02	-2,13E-01
ODP	kg CFC 11 eq.	1,08E-05	1,63E-08	5,64E-09	0,00E+00	0,00E+00	3,38E-10	0,00E+00	2,90E-10	-1,27E-09
AP	mol H <sup>+</sup> eq.	1,51E-02	2,44E-03	8,05E-04	0,00E+00	0,00E+00	5,06E-05	0,00E+00	7,55E-05	-9,65E-04
EP-freshwater	kg P eq.	6,00E-04	5,23E-05	3,82E-05	0,00E+00	0,00E+00	1,09E-06	0,00E+00	8,34E-07	-2,99E-05
EP-marine	kg N eq.	3,24E-03	8,40E-04	2,61E-04	0,00E+00	0,00E+00	1,75E-05	0,00E+00	2,90E-05	-4,11E-05
EP-terrestrial	mol N eq.	3,30E-02	8,85E-03	1,57E-03	0,00E+00	0,00E+00	1,84E-04	0,00E+00	3,11E-04	-1,94E-03
POCP	kg NMVOC eq.	1,22E-02	3,64E-03	5,95E-04	0,00E+00	0,00E+00	7,56E-05	0,00E+00	1,08E-04	-9,39E-04
ADP-minerals&metals*	kg Sb eq.	2,42E-05	2,45E-06	1,91E-06	0,00E+00	0,00E+00	5,09E-08	0,00E+00	1,41E-08	-9,21E-07
ADP-fossil*	MJ	6,70E+01	1,07E+01	2,70E+00	0,00E+00	0,00E+00	2,22E-01	0,00E+00	2,52E-01	9,41E+00
WDP*	m <sup>3</sup>	1,32E+00	5,23E-02	1,18E-01	0,00E+00	0,00E+00	1,09E-03	0,00E+00	7,82E-04	-1,04E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption									

\* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## Additional mandatory and voluntary impact category indicators

Results per functional unit (1 m <sup>2</sup> )										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-GHG <sup>1</sup>	kg CO <sub>2</sub> eq.	2,93E+00	7,48E-01	1,63E-01	0,00E+00	0,00E+00	1,55E-02	0,00E+00	1,00E-02	-2,52E-01
Ecotoxicity-freshwater	CTUe	9,93E+00	5,19E+00	7,22E+00	0,00E+00	0,00E+00	1,08E-01	0,00E+00	1,17E-01	-2,71E-01
Human toxicity: carcinogenic	CTUh	1,90E-09	3,54E-10	1,44E-09	0,00E+00	0,00E+00	7,36E-12	0,00E+00	4,50E-12	-2,66E-11
Human toxicity: non-carcinogenic	CTUh	3,14E-08	7,50E-09	3,28E-09	0,00E+00	0,00E+00	1,56E-10	0,00E+00	5,37E-11	-1,02E-09
Ionising radiation: human health	kBq U235 eq.	3,41E-01	1,42E-02	1,14E-02	0,00E+00	0,00E+00	2,95E-04	0,00E+00	1,58E-04	-3,05E-03
Land use/soil quality potential	-	1,18E+01	6,30E+00	3,95E-01	0,00E+00	0,00E+00	1,31E-01	0,00E+00	4,96E-01	-2,25E+00
Particulate matter formation	disease incidence	1,17E-07	5,95E-08	1,39E-08	0,00E+00	0,00E+00	1,24E-09	0,00E+00	1,65E-09	-6,09E-09

<sup>1</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

## Resource use indicators

Results per functional unit (1 m <sup>2</sup> )										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ	5,79E+00	1,64E-01	1,71E-01	0,00E+00	0,00E+00	3,41E-03	0,00E+00	2,11E-03	-5,95E-01
PERM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,79E+00	1,64E-01	1,71E-01	0,00E+00	0,00E+00	3,41E-03	0,00E+00	2,11E-03	-5,95E-01
PENRE	MJ	6,70E+01	1,07E+01	2,70E+00	0,00E+00	0,00E+00	2,22E-01	0,00E+00	2,52E-01	-9,41E+00
PENRM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	6,70E+01	1,07E+01	2,70E+00	0,00E+00	0,00E+00	2,22E-01	0,00E+00	2,52E-01	-9,41E+00
SM	kg	1,06E+00	4,80E-03	5,46E-03	0,00E+00	0,00E+00	9,98E-05	0,00E+00	6,06E-05	1,44E-01
RSF	MJ	1,27E-04	6,11E-05	7,37E-06	0,00E+00	0,00E+00	1,27E-06	0,00E+00	1,30E-06	-9,84E-07
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

FW	m <sup>3</sup>	3,05E-02	1,27E-03	2,33E-03	0,00E+00	0,00E+00	2,65E-05	0,00E+00	2,60E-04	-2,83E-04
Acronyms	PERE = Use of renewable primary energy as energy carrier; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy; PENRE = Use of non-renewable primary energy as energy carrier; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resource; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water									

## Waste indicators

Results per functional unit (1 m <sup>2</sup> )										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	6,38E-02	7,16E-03	4,88E-03	0,00E+00	0,00E+00	1,49E-04	0,00E+00	1,21E-04	-2,41E-03
Non-hazardous waste disposed	kg	2,54E+00	2,18E-01	1,38E-01	0,00E+00	0,00E+00	4,52E-03	0,00E+00	3,61E-03	-1,39E-01
Radioactive waste disposed	kg	8,28E-05	3,44E-06	2,77E-06	0,00E+00	0,00E+00	7,15E-08	0,00E+00	3,69E-08	-6,99E-07

## Output flow indicators

Results per functional unit (1 m <sup>2</sup> )										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	1,95E-02	7,82E-05	1,19E-01	0,00E+00	0,00E+00	1,63E-06	0,00E+00	1,13E-06	1,54E-02
Materials for energy recovery	kg	1,64E-06	6,55E-07	1,27E-07	0,00E+00	0,00E+00	1,36E-08	0,00E+00	4,06E-09	5,04E-07
Exported energy, electricity	MJ	1,74E-02	1,71E-03	6,78E-04	0,00E+00	0,00E+00	3,55E-05	0,00E+00	1,38E-05	-2,57E-04
Exported energy, thermal	MJ	9,84E-02	2,27E-03	3,96E-04	0,00E+00	0,00E+00	4,71E-05	0,00E+00	8,61E-06	-4,28E-04

## Additional environmental information

For us, caring for our planet is one of the central points in our activity, which is why we work to make our business an increasingly sustainable model.

Aligned with the United Nations Sustainable Development Goals, we have developed our ERS program (Ecological, Responsible and Sustainable program) as a guide for our activity. The main pillars in our program are:

Sustainable Raw Materials | Zero Carbon Target | Zero Waste Target | Circular Economy

In terms of our energy consumption, a 30% comes from solar panels installed on the factory roof as part of the current renewable source of power.

## **Additional social and economic information**

At same time we care about people and for that reason we work actively for the social inclusion of persons with disabilities. Our company has a partnership with a local association providing us support services and ready product.

## **Differences versus previous versions**

This is the first EPD for this product.

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